



Patterns and perceptions of climate change in a biodiversity conservation hotspot

Author(s): Hartter J, Stampone MD, Ryan SJ, Kirner K, Chapman CA, Goldman A
Year: 2012
Journal: PLoS One. 7 (2): e32408

Abstract:

Quantifying local people's perceptions to climate change, and their assessments of which changes matter, is fundamental to addressing the dual challenge of land conservation and poverty alleviation in densely populated tropical regions. To develop appropriate policies and responses, it will be important not only to anticipate the nature of expected changes, but also how they are perceived, interpreted and adapted to by local residents. The Albertine Rift region in East Africa is one of the world's most threatened biodiversity hotspots due to dense smallholder agriculture, high levels of land and resource pressures, and habitat loss and conversion. Results of three separate household surveys conducted in the vicinity of Kibale National Park during the late 2000s indicate that farmers are concerned with variable precipitation. Many survey respondents reported that conditions are drier and rainfall timing is becoming less predictable. Analysis of daily rainfall data for the climate normal period 1981 to 2010 indicates that total rainfall both within and across seasons has not changed significantly, although the timing and transitions of seasons has been highly variable. Results of rainfall data analysis also indicate significant changes in the intra-seasonal rainfall distribution, including longer dry periods within rainy seasons, which may contribute to the perceived decrease in rainfall and can compromise food security. Our results highlight the need for fine-scale climate information to assist agro-ecological communities in developing effective adaptive management.

Source: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3288093>

Resource Description

Communication: ☒

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience: ☒

audience to whom the resource is directed

Public

Exposure : ☒

weather or climate related pathway by which climate change affects health

Climate Change and Human Health Literature Portal

Ecosystem Changes, Extreme Weather Event, Food/Water Security

Extreme Weather Event: Drought

Food/Water Security: Agricultural Productivity

Geographic Feature: 

resource focuses on specific type of geography

Tropical, Other Geographical Feature

Other Geographical Feature : Forest

Geographic Location: 

resource focuses on specific location

Non-United States

Non-United States: Africa

African Region/Country: African Region

Other African Region: Albertine Rift region in East Africa

Health Co-Benefit/Co-Harm (Adaption/Mitigation): 

specification of beneficial or harmful impacts to health resulting from efforts to reduce or cope with greenhouse gases

A focus of content

Health Impact: 

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

Medical Community Engagement: 

resource focus on how the medical community discusses or acts to address health impacts of climate change

A focus of content

Mitigation/Adaptation: 

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern: 

populations at particular risk or vulnerability to climate change impacts

Low Socioeconomic Status

Resource Type: 

Climate Change and Human Health Literature Portal

format or standard characteristic of resource

Research Article

Timescale: ☒

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☒

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content